GOLD BUTTERFLY
PUBLIC MEETING NOTES

Where: Met at Supervisors Office Date: June 28, 2017 Time: 1400-1730

Notes Taken by: Sara Grove

Attendees: Fred Weisbecker, Wes Maydole, Gary Milner, Diane Olhoeft, Dennis Pitman, Taylor Orr, Skyler Hoefer, Chris Clancy, Thayer Jacques, Michele Deiterich, Jeff Lonn, Andy Roubik, Larry Campbell, Bain Robinson, Doug Wasileski, Stephanie Joyce, Abe Streep, John Allison (didn't sign in)

Forest Service Representatives: Nate Barber, Jo Christensen, Cole Mayn, Ed Snook, Sara Grove, Gil Gale, Cheri Hartless, Jon Garlitz, Marilyn Wildey, Tami Sabol

SUMMARY

Nineteen people attended the public field trip to the Gold Butterfly project area along with ten Forest Service representatives. We met in the Supervisor's Office parking lot, loaded into 4 vans and drove to the project area in the Willow Creek vicinity. Five stops were planned: 1) On NFSR 969 near the slide area to discuss road, fish and stream interactions and possible solutions, 2) Proposed trailhead relocation at junction of NFSR 969 and 969A to discuss proposed treatments, 3) Illegal OHV trails that cut road switchbacks, concerns and proposed treatments, 4) Junction of NFSR 364 and 13111 to discuss road storage and decommission, and 5) Saddle between Butterfly and Eastman Creeks to discuss proposed vegetation treatments and logging systems, why here/why now, concerns.

Stop 1: Willow Creek Road and site of landslide

Short discussion of the erosion event that occurred June 13. Ed Snook and Cole Mayn led the discussion. The slide was the result of a greater than 100 year storm event (about 4" in 24 hours). The saturation of shallow soils close to bedrock contributed to the slide. Runoff travelled down the road above the slide and concentrated flow in the small drainage, saturating the soil and road fill and causing the slope to slide. The small bench at the bottom of the drainage (alluvial fan) collected slide material and slowed the flow that poured onto the road. Some material was diverted down the road and some flowed into the stream. This type of event is extremely rare but as one field trip participant noted could become more common with climate change and another noted this is how alluvial fans form.

Willow Creek was flowing extraordinarily high at the time of the slide so much of the material was transported downstream and deposited in lower gradient reaches. It is unlikely that bull trout or westslope cutthroat trout spawning was affected by the landslide. Bull trout spawn in the fall and westslope cutthroat trout were unlikely to spawn at the time of the landslide because of the high flows, steep channel gradients, and cold water temperatures. Westslope

cutthroat trout may have been spawning at lower elevations of Willow Creek where the channel gradients were gentler and water temperatures warmer.

Jo Christensen, project fisheries biologist, discussed fish in relation to proposed project. Bull trout and westslope cutthroat trout are present in Willow Creek. Sediment from the road system and barriers to fish passage (culverts) are the biggest fisheries issues in the project area. She demonstrated the negative effect of fine sediments in spawning gravels. Restoration activities could include removing fish barrier culverts, reducing sediment from the road by adding bentonite to surfacing gravels, lining ditches with rock, installing drive-through dips on steep road sections, and draining roads into filter strips where available. Other fisheries issues include irrigation withdrawals downstream from National Forest, and non-native fish competition. The fisheries analysis will include where roads are located, the number of stream crossings, and the number and size of vegetated filter strips and how this might affect the fisheries.

A question was asked about the importance of sediment from logging operations entering streams. Jo responded that Forest Plan standards (INFISH buffers) captured sediment before it can enter streams. The greatest potential for sediment to enter streams and affect water quality and fisheries is from roads and travel on roads, especially during log haul. Proposed road work would occur prior to log haul.

Road decommissioning and storage came up as a point of discussion with a participant questioning the appropriateness of counting decommissioned roads that are not treated as improved conditions and offsets for road construction effects. The numerical comparison of roads decommissioned or constructed is indicative of a change in the road system not the effects of the road system. Depending on the location, design, and rehabilitation of the roads, their effects may range from minor to severe and would be described in the effects analysis by resource. Decommissioning is a decision to remove a road from the transportation system and return it back to the productive land base. The decision to no longer manage as a road ensures the road feature will continue to naturally recover even if no active rehabilitation treatments are completed.

A question was asked about cost of vegetation management vs. the profits from harvest. Nate Barber described the difference between present net value (PNV) and timber sale feasibility. The PNV analysis that would be part of environmental impact statement (EIS) and has not yet been calculated.

Another question was about road densities and elk habitat effectiveness (EHE). There are 172 miles of road in the project area, 132 miles of which are open during some portion of the year. Willow Creek, Beartrap, and Butterfly are the third order drainages do not meet EHE because of the main access roads into the project area.

There were questions about road maintenance backlog and deferred maintenance. Congress allocates money for road maintenance annually. In 2016, the Bitterroot National Forest was allocated $350,000 for maintenance of almost 400 miles of road. Maintenance focuses on areas of highest need. Forest Plan monitoring reports (posted on forest website for 2008-2015) document the amount of road maintenance accomplished annually. Deferred maintenance is a

wish list created in 2004 to identify road management needs that were not supported by the current budget. The Forest identified treatments it would like to do to roads but that were not required or necessary for forest management or resource protection. Proposed treatments ranged from graveling all roads, paving Nez Perce Road, increasing signage, and spraying weeds. Projects proposed on the list were never funded and the list is not maintained. The Forest maintains between 200-400 miles of road annually, depending on Congressional allocations. The Forest prioritizes road maintenance on roads with the highest potential to negatively affect natural resources. There are also cases where specific budget directives and authorities have focused work on project areas.

Stop 2: Junction of NFSR 969 and 969A

Tami presented the information Deb Gale, recreation program manager, provided for the field trip.

Existing Condition

- 1 campground – Gold Creek Campground
- 13 trails within project area
- Dispersed sites throughout project area - used primarily during hunting season
- NFSR 969 disabled hunter access - used every day during 2016 hunting season
- Stoney Mountain IRA – portions in project area
- Illegal OHV access

Preliminary Proposals

- Close Burnt Fork Rd. at the Gold Creek campground and move the Gold Creek Trailhead to the Gold Creek Campground. Establish accessible site, potable water. Design and plan for stock parking with an additional site for camping with stock. Move hitch rails, good horse trailer parking here. (Note: Potable water in Gold Creek CG has been a project on the Capital Improvement Program list for several years but is a low priority in the region. It will not be part of the proposed improvements in the Gold Butterfly project.)
- Existing rock collecting site would be closed when Gold Creek TH moved (other potential sites being evaluated).
- Block off illegal OHV access to restore sensitive sites and reduce sediment to adjacent streams.
- Close NFSR 969A at junction with NFSR 969 (Willow Creek Rd.), move the trailhead to the junction and develop a parking area and bulletin board. Currently, there is an old table and fire ring at the Willow Creek trailhead that are continuously vandalized. The Forest Service will not replace these at the new parking lot.

There wasn't much discussion on the trailhead relocations. Some question about horse trailer access (not planned for the Willow Creek site), road treatment above the proposed trailhead (convert to trail and pull the culvert that is a fish barrier, create hardened ford at the crossing).

Tami noted that we'd work with Backcountry Horsemen for Gold Creek CG design.

Larry Campbell expressed the need to educate the public on the need for higher road maintenance budget, roads are the overriding issue on the forest and dust abatement is needed on some roads.

A request was made that the Forest Service consider trail buffers in harvest units to provide shade for forest users. Trails and their use will be considered in the silviculture prescription but buffers may not protect the amenities of the trail or it's use.

Dave Lockman discussed wildlife in the project area. The wildlife analysis will include evaluations of threatened, endangered, and sensitive species (TES), and management indicator species (MIS). Lynx is a threatened species and unoccupied habitat exists in the project area. The Forest Service manages the unoccupied habitat to meet Northern Rockies Lynx Management Direction, which may exclude some units from treatment.

Flammulated owls are a sensitive species that would likely to benefit from treatments in ponderosa pine old growth. It was pointed out that in British Columbia, flammulated owls are associated with Douglas-fir. Dave acknowledged that though that may be true in British Columbia, this far south the owls were associated more with ponderosa pine.

A person asked if an alternative could be developed that would not affect wildlife. Dave pointed out that since wildlife live in the forest, it is not possible to treat the forest without affecting wildlife. Some species of wildlife will be positively affected and others negatively. The wildlife analysis will evaluate what the effects are and whether they are significant or not.

A question was raised as to whether the Forest would analyze grizzly bear habitat as bear sitings have been reported in the vicinity. Dave replied that the Bitterroot National Forest is not an "occupied" forest and grizzly bear habitat would not be analyzed. The analysis will analyze effects on marten, wolverine, and fisher, elk and other TES and MIS. Since 2007, the Forest has monitored bait stations for small carnivores with help from the Defenders of Wildlife. Twelve sites inside the project area have been monitored. No evidence of fisher at the present time, but years ago some have been seen (probably following 1960s era reintroduction efforts).

Stop 3: Illegal OHV trails that cut road switchbacks

People are driving off road vehicles on road cuts and connecting switchbacks on the road. This use exposes and compacts soils, funnels run-off, and causes rilling and loss of soil organic material . There was a question about the fine for riding OHV off of roads. No one was sure what the actual fine is but guessed between $150-200; a fairly small amount and likely not much of a deterrent. Law enforcement to stop this type of activity is limited, even with a dedicated OHV ranger, because of the large area to cover. Additional signs will be installed as part of Travel Plan implementation but their function is informational and not a deterrent.

The Bitterroot National Forest road crew moved 64 loads of material (approximately 600 cubic yards) off the Willow Creek road from the slide to this area and stored it on roads closed to motor vehicle use. Some of the material will be used to rehabilitate illegal OHV trails and would be graded to match the landform, seeded, and mulched. Existing trails will be subsoiled, slashed, and seeded.

There was a question about the potential for developing OHV areas in the project area. The reply was that this is not proposed with this project and would not meet the project's purpose and need. It could be considered as a different project proposal if the need was identified that could not be met elsewhere.

Stop 4: Butterfly Creek road (NFSR 13111) and the junction of NFSR 364

Cole Mayn led the discussion on road decommission and storage. The 13111 road is proposed for decommission without treatment because of its proximity to the stream (the streambanks are the road fill), the level of vegetation recovery, lack of erosion, stable form, and non-motorized recreation use. For the reasons listed, the road would not be used for log haul and there would be no active decommission treatments. Hauling on or recontouring this section of road would cause negative effects to the stream and additional effects to the downstream impaired stream. In this project, the Forest Service proposes to construct an alternate road section that would connect two existing roads and cross Butterfly Creek lower on the stream. The alternate route would maintain management access to the area.

The culvert on NFSR 364 is a fish barrier and would be removed and replaced with an open bottom culvert to facilitate fish passage.

Cole described the differences between decommission and stored roads. Decommission is proposed for roads not needed for future forest management or cause negative resource impacts. Decommissioning returns the road back to productive forest, restores drainage, and removes culverts as needed. Stored roads remain part of the forest road system. Typically, the road prism remains intact and the road is hydrologically stabilized. Drainage structures are removed and entrance barriers are created ensure no motorized access occurs until future management is proposed. When roads are stored or decommissioned, the Forest Service considers their use or potential for resource damage (hiking, biking, horseback riding, road stability following fire) in the rehabilitation design.

Weed discussion led by Gil Gale. Disturbance can lead to spread of weeds, goal is to revegetate so that desirable species can compete with weeds. Use Knudsen-Vandenburg (KV) funds when possible. The focus is on eradicating new invaders such as hawkweed, blueweed, rush skeleton weed and reducing the presence of endemic non-natives such as knapweed and St. Johnswort. The Forest Service monitors weeds in activity areas and has an active weed treatment program. KV (from timber sale receipts) and Resource Advisory Council (RAC) funds can be made available for weed treatments, biological controls often used.

A question was asked about St. Johnswort in the Camas Creek area following harvest and Gil replied that some biological controls have been released in the area and research indicates that the population of St. Johnswort is lower now than in the past. He estimates that the Bitterroot National Forest does 70-80% of weed control needed. Success of weed treatments depends upon collaboration with county weed board and the Montana Department of Natural Resources and Conservation.

Sensitive plants have been identified in project area. Crews will complete surveys for sensitive plants and weeds in the project area. They note the habitat characteristics and growing conditions, and sensitive plant populations are mapped and flagged so they can be protected

during project implementation. Some sensitive plants have evolved under frequent fire return intervals and so respond positively to disturbance. Other plants grow in moist conditions and longer fire return intervals and are typically protected through the use of treatment buffers. The Gold Butterfly project includes a research proposal to improve whitebark pine habitat. These proposed treatment areas are located north and east of Palisade Mountain adjacent to the Stoney Mountain roadless area.

Stop 5: Eastman Creek Overlook

Discussion of forest conditions and treatment options led by Cheri Hartless.

Disturbance drives the ecology of the landscape. Fire, insects, disease, and wind determine the vegetation species, age, and size class present on the site. Cheri described research on the Bitterroot National Forest by Steve Arno that indicates the fire return interval ranges between 1-40 years in ponderosa pine and that some fires in ponderosa pine habitats are not low severity. Higher severity fires create even-aged cohorts in uneven-aged ponderosa pine forests.

Douglas-fir is the potential climax species in most ponderosa pine forests so it is generally a component of ponderosa pine dominated forests.

Fire was a more common occurrence in the Bitterroot Valley than in the East or West Forks of the Bitterroot because of the use of fire by Native Americans.

Lodgepole pine usually increases in susceptibility to mountain pine beetle when stands reach 80-100 years. Susceptibility to mountain pine beetle attacks increase with stand density and stands killed by mountain pine beetle are generally restored when fire burns through the dead fuels. Therefore, lodgepole pine stands are even-aged.

Douglas-fir bark beetle, western spruce budworm, mountain pine beetle, and Douglas-fir dwarf mistletoe are present in the project area. Higher incidence of these forest pathogens can influence fire severity when fire does occur. Dwarf mistletoe creates “brooms” of dense needles that increase ladder fuels and the potential for crown fire and stand replacement fires.

Douglas-fir dwarf mistletoe can spread seed about 30’ and the distance of seed spread increases for Douglas-fir growing on steep hillsides. Seed is released and falls through the canopy infecting branches in the lower canopy or Douglas-fir trees growing in the understory. Douglas-fir is the principle host of Douglas-fir dwarf mistletoe though grand fir and subalpine fir can be infected when they are associated with infected Douglas-fir. Proposed treatments in infected Douglas-fir stands is to remove the infected Douglas-fir overstory and maintain the ponderosa pine. The ponderosa pine would be resistant to dwarf mistletoe infection from any of the remaining infected trees.

Western spruce budworm is especially infectious in multi-storied stands as the larvae spin from silk threads onto needles in the lower canopy or onto trees in the understory.

There was a question as to whether fire could be allowed to play its natural role in the Gold Butterfly area after treatment. Current forest plan direction in the area is for fire suppression. Possible that the new forest plan could allow for fire to play a larger role. There are proposals for prescribed fire following vegetation treatments that would allow for prescribed fire to maintain conditions. Treatment and the management of fuels would support fires burning

within the fire severities under which they evolved and would provide more fire management options.

Will carbon sequestration be addressed in the analysis? Carbon sequestration will be addressed in the environmental analysis but it is unlikely to change in the long-term because the Forest Service is not converting the forest to a different use. In other words, the forest will grow back to forest and will not be converted to annual agriculture or urban types of uses.

Logging systems discussion led by Nate Barber.

The type of logging system used depends upon slope. Steeper slopes require skyline or cable yarding. Cable systems are more expensive and cause less ground disturbance. Ground disturbance is greater at the top of the cable corridor because many corridors converge at the point where the yarder is located. Tractor or ground based systems can occur on more gentle slopes (generally <35%) and are more dispersed, but regulated in timber sale contract. The current proposal has 60% skyline and 40% tractor yarding.

The Forest Service timber sale contract has provisions to protect soils, fish, water and other resources that timber companies agree to follow when they purchase a sale. The contract provisions are enforced by the timber sale administrator. Timber is marked to meet the intent of the silvicultural prescription and is field verified by the silviculturist.

A question was asked about why cable systems would not be used on tractor units since cable systems cause less ground disturbance. Nate explained that cable systems need some declination in order for the carriage to travel up or down the cable. The cable also has to be off the ground in order to lift the logs high enough so they are not dragged on the ground.

Question about how the need for additional roads is determined. Current road system and area accessed is reviewed, areas not roaded are reviewed to determine if vegetation treatment is necessary. If treatment is needed, roads can be proposed. Temporary roads are generally less than ½ mile and don't cross streams. They are recontoured and rehabilitated following use. National Forest system roads (specified roads) are longer than ½ mile, may cross a stream or potentially influence water, are often on steeper slopes and would be constructed to specific standards. They are needed for long term forest management though they may be stored following harvest.

Question about the amount of sedimentation into streams from logging. Current forest practices provide for vegetation buffers adjacent to streams. These vegetation buffers filter sediment from logging units so it does not reach the streams. In fish bearing streams, buffers are 300' (based upon the height of site potential trees times 2 for a safety factor). On non-fish bearing streams the buffers are narrower. Buffers can vary in width based on field surveys and environmental factors.

Question about compaction and the effect of that upon rooting capacity. Cole monitors compaction before, after, and several years after logging operations. He evaluates rooting potential and organic matter and whether yarding may have reduced soil health and function. Organic matter is critical to microbial growth in soils. Cole's monitoring has shown that soils compacted from ground based yarding have returned to pre-project conditions within 5 years.

Question about restoration of compacted soils and the adverse effects of ripping soils. Cole described the difference between a ripper and sub-soiler. The ripper mixes the different soil layers in the soil profile. A sub-soiler has a 2 foot long winged tooth that lifts the soil but does not mix it or bring rocks to the surface. Typically treatment areas are subsoiled to a depth of 2 feet. Subsoiling is used to reduce soil compaction.

Comment that commercial units in inventoried roadless is a bad idea and wondering exactly what the treatment would be. Because the units are high elevation and are yet inaccessible, the exact units for treatment and the types of treatments have not yet been determined. Consideration of inventoried roadless values will be considered in the identification of units and the prescribed treatments.

Question about how much of the project is in old growth. Old growth surveys are underway but the amount and distribution have yet to be analyzed. Logging in old growth is allowed in the forest plan, and the Forest Service is monitoring recent treatments in ponderosa pine old growth. The objective for treating old growth is to maintain and perpetuate old growth conditions. In ponderosa pine old growth forests this can be done by retaining large ponderosa pine and removing competing Douglas-fir. In other old growth forests, treatments are more complex and may not be feasible.

Questions or discussion raised by field trip attendees:

Project would haul logs on a road system currently not maintained sufficiently to protect fisheries and water quality by keeping sediment out of the stream.

> Road improvements made before log haul would reduce the negative effects on water quality and fish habitat by changing the way water drains from the road system adjacent to streams.

How many new roads and temporary roads would be built and where?

> At this point in the analysis, the Forest Service proposes seven miles of National Forest Service system roads and seven miles of temporary roads. Their locations are generally on uplands and shown on maps.

Would sediment from road construction enter streams?

> It is unlikely that sediment from road construction would enter streams because their locations are generally outside of the riparian areas and there are few stream crossings. Stream crossings tend to be at the heads of streams that are intermittent and do not support fish habitat. Best Management Practices will be applied during road construction and design and are effective at keeping sediment within natural levels.

Could county road conditions handle log truck traffic?

> It is the responsibility of the County to maintain roads in conditions to handle all legal uses of the roads. Logs truck traffic has been hauled on the County roads adjacent to the project area in the past.

Increased traffic on Willow Creek road would reduce the quality of life for those living adjacent to the road.

Traffic may increase during the life of the timber sales and general visitor traffic may increase because of the improved road conditions. Willow Creek road is a public road that accesses public lands. Traffic is likely to increase with increasing population growth and tourism in the Bitterroot Valley and surrounding areas.

Will hauling result in increased dust in the air in neighborhoods/private property?

Most of the haul route adjacent to private property is on paved roads so dust levels are not likely to increase. Dust will likely increase on unpaved sections of road and the County has a dust abatement program for county roads to which private land owners can apply. The Forest Service has contract provisions for dust abatement during timber sales on roads within their management jurisdictions.

Will the project generate enough revenue to pay for the improvements needed to the road system and other activities?

Not all projects proposed in the Gold Butterfly project are dependent on revenues from the timber sales. Some projects would be funded by Congressional appropriations, Resource Advisory Committee grants, and grants or partnerships from other sources. Often, the NEPA analysis needs to be completed before applications to these funding sources can be made.

How would proposals affect abundance/quality of elk winter range/thermal cover?

Elk are more dependent on quality forage than thermal cover for winter survival and there is often little thermal cover on elk winter range by the nature of the sites. The Gold Butterfly project is likely to improve the quality and abundance of forage.

Would felling and moving of trees result in increased spread of mistletoe?

It is not likely that felling and moving trees infected with dwarf mistletoe would spread the infection because of how the mistletoe seed disperses. Seeds are typically ejected from the dwarf mistletoe plant by high internal water pressure between September and October. Water pressure in harvested trees would be inadequate to eject seeds and their horizontal position would limit the distance of any seed extruded.

What forest plan amendments would be required for this project and why?

A Forest Plan amendment may be required to provide project-specific variances to Forest Plan standards for coarse woody debris, old growth, winter range thermal cover, and elk habitat effectiveness. The coarse woody debris standard on dry and harsh sites is too high according to current research (Forest Plan pg. III-6, 12, 19). The Forest Plan allows treatment in old-growth stands however, old growth distributions by management area and third order drainages may not be present. Treatments in old growth stands may be needed to maintain old-growth characteristics in management areas/third order drainages that do not meet the prescribed distribution. A variance to the elk habitat effectiveness standard may be needed in three subwatersheds

because the standard cannot be met. The main access road through these subwatersheds exceeds the standard because of the length of the open road, terrain, and the size of the subwatershed. All the roads off of the main road are closed and there are no other alternatives to meet the Forest Plan standard. A variance to thermal cover on winter range may be needed because canopy closures defined in the standard may not be attainable in forest types on winter range.